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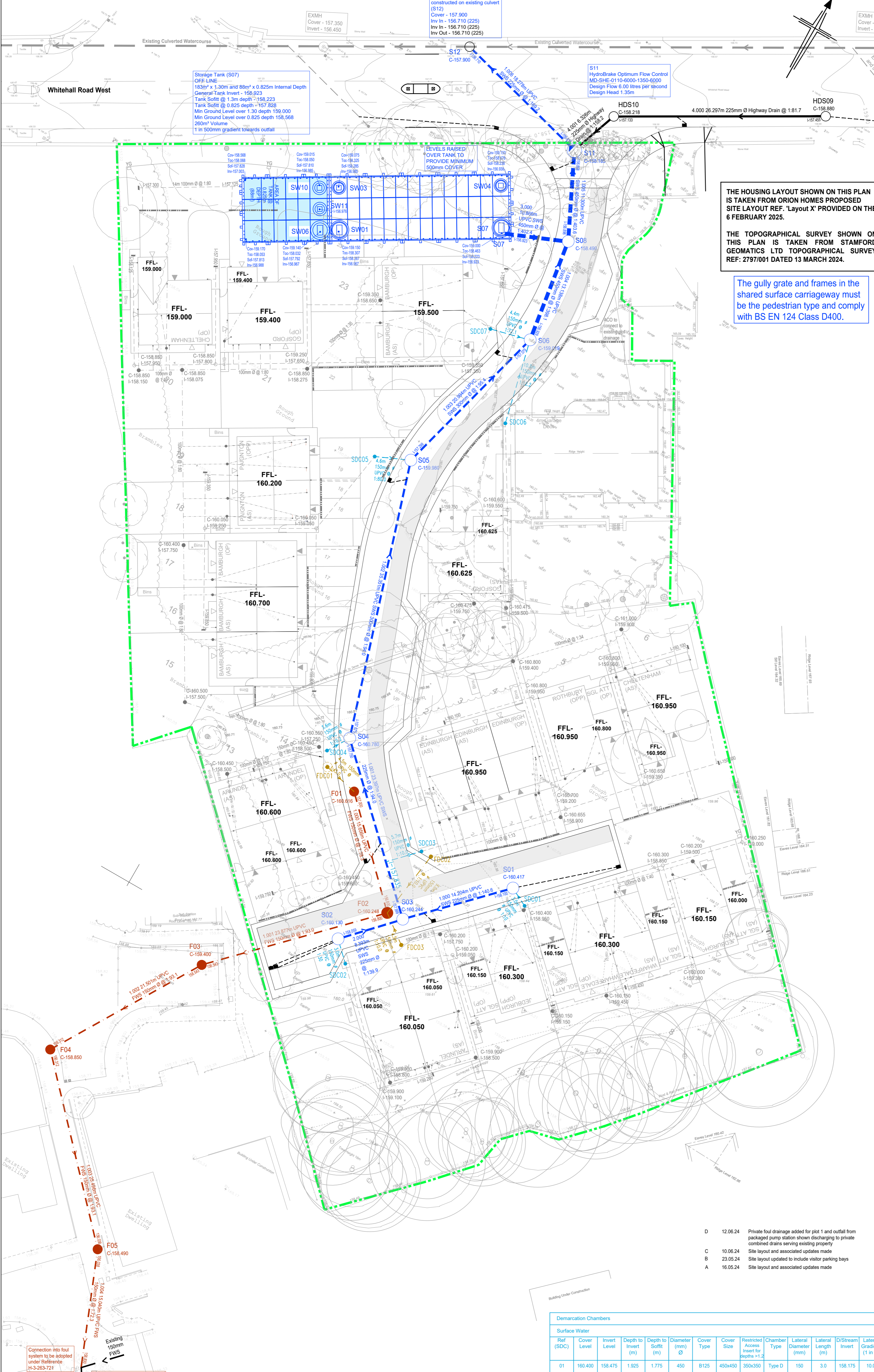
The locations of utilities apparatus, if shown, have been reproduced from plans supplied to Bryan G Hall Limited. Although care has been taken in duplicating this information, these locations are approximate only. No guarantee can be given by Bryan G Hall Limited for their accuracy. It is the client's or its appointed agent/contractor's responsibility to verify the exact locations on site by appropriate means prior to mechanical excavation.

- KEY: Existing Culverted Watercourse, Existing Foul Water Sewer and Manhole, Proposed Surface Water Sewer and Manhole, Proposed Surface Water Flow Control Manhole, Proposed Surface Water Lateral Drain and Demarcation Chamber, Proposed Private Surface Water Drain and Inspection Chamber (100mm Ø at 1 in 80 unless specified otherwise), Rodding Eye, Yard Gully, ACO Drain / Concrete Channel or Similar, Proposed Foul Water Sewer and Manhole, Proposed Foul Water Lateral Drain and Demarcation Chamber, Proposed Private Foul Water Drain and Inspection Chamber (100mm Ø at 1 in 80 minimum elsewhere unless specified otherwise), Proposed Private Foul Water Mini Inspection Chamber, Proposed Highway Drain and Manhole, Proposed Highway Gully and 150mm Ø Connection, Proposed Easement

- YORKSHIRE WATER NOTES: 1. All dimensions in millimeters unless stated otherwise. 2. All adoptable sewer works and material to be in accordance with The Water Services Association 'Code for Adoption Design and Construction Guidance'. 3. All oversized manhole products (circular vertical units, cover slabs, adjusting and corbel units) and all ancillary concrete products shall comply with the relevant provisions of BS EN 1917 and BS 5911-3:2011. 4. All precast concrete units in oversized manholes must have a design working life of 100 year minimum in accordance with BS5500-1:2014+A2:2019 - Table A.5. 5. Precast concrete manhole units including their PVC cover slabs shall be manufactured from concrete with a Design Mix Class C25 unless satisfactory evidence through soil analysis can be provided that a lower class will resist attack from soils and ground water. 6. Manhole covers shall have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways. 7. Filled ground must be filled and consolidated under the supervision and to the satisfaction of the Yorkshire Water before any sewer works are carried out. 8. Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or indirectly). 9. Cover slabs must carry the BS Kitemark or will be rejected by the Yorkshire Water Inspector. 10. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins. 11. 'Sewers must have 5 metres clearance from trees and hedges or the width of the canopy at mature height. 12. Sewers to be laid in Class 'S' Bedding (150mm granular bed and surround). 13. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2). 14. The chamber size of manholes with more than one connection in them may need to be increased in order to accommodate the connections and bends. 15. Yorkshire Water's policy is that brick manholes and 1050mm diameter manhole rings are not preferred. 16. Adoptable plastic sewer pipes to be BS1 Kitemark (certified to WIS 4-35-01 and BS EN 13476). 17. The minimum crushing strength for clay pipes should be as follows: 100mm dia. 40kN/m, 150mm dia. 40kN/m, 225mm dia. 45kN/m and 300mm dia. 72kN/m. 18. Where a B125 cover and frame has been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. 19. There should be enough clearance at crossovers to accommodate bedding to both pipes, approx. 300mm - if crossover is near the rocker then the clearance needed may be increased.

THE HOUSING LAYOUT SHOWN ON THIS PLAN IS TAKEN FROM ORION HOMES PROPOSED SITE LAYOUT REF. 'Layout X' PROVIDED ON THE 6 FEBRUARY 2025. THE TOPOGRAPHICAL SURVEY SHOWN ON THIS PLAN IS TAKEN FROM STAMFORD GEOMATICS LTD TOPOGRAPHICAL SURVEY REF: 2797/001 DATED 13 MARCH 2024.

The gully grate and frames in the shared surface carriageway must be the pedestrian type and comply with BS EN 124 Class D400.



ADDITIONAL INFORMATION: KIRKLEES COUNCIL REQUEST THAT A 'CONSTRUCTION COMPLIANCE CERTIFICATE' TOGETHER WITH 'AS BUILT' DRAWINGS ARE SUBMITTED UPON THE COMPLETION OF THE WORKS. IN ADDITION, ALL REFERENCES TO 'KITEMARK' MUST BE ACCOMPANIED WITH THE CORRESPONDING BRITISH STANDARD FOR THEM TO BE MEANINGFUL AND RELEVANT. KIRKLEES COUNCIL (LLFA) NOTES: ANY UNRECORDED WATERCOURSES OR SPRINGS FOUND ON SITE SHOULD BE IDENTIFIED TO KIRKLEES COUNCIL. THERE ARE NO LAND DRAINAGE FEATURES PRESENT ON SITE. THERE ARE NO PRIVATE PIPES OR LOCATED CLOSE TO THE SECTION 38 HIGHWAY BOUNDARY IN CONNECTION WITH LAND DRAINAGE OR UNADAPTABLE SUDS FEATURES THAT REQUIRE MAINTAINING BY THIRD PARTIES. A CONSTRUCTION PHASE SURFACE WATER MANAGEMENT STRATEGY WILL BE REQUIRED TO BE APPROVED BY KIRKLEES COUNCIL.

MANHOLE SCHEDULE table with columns: Ref, Cover Level, Invert Level, Access Shaft, Cover Type, Cover Size. Includes FP McCann STORAGE TANK and Demarcation Chambers.

Demarcation Chambers table with columns: Ref, Cover Level, Invert Level, Depth to Invert, Depth to Soffit, Diameter (mm), Cover Type, Cover Size, Restricted Access Insert for depths >1.2, Chamber Type, Lateral Diameter, Lateral Length, D/Stream Invert, Lateral Gradient (1 in 7).

Demarcation Chambers table with columns: Ref, Cover Level, Invert Level, Depth to Invert, Depth to Soffit, Diameter (mm), Cover Type, Cover Size, Restricted Access Insert for depths >1.2, Chamber Type, Lateral Diameter, Lateral Length, D/Stream Invert, Lateral Gradient (1 in 7).

Demarcation Chambers to be WAVIN OSMA ULTRARIB POLYPROPYLENE Inspection Chambers. Demarcation chambers to be constructed as a TYPE A, B or C manhole if depth to soffit exceeds 3.0m. Lateral Drains to be WAVIN OSMA ULTRARIB UPVC Pipes. Demarcation chambers located in non trafficked areas then 150mm granular bed and surround required. Demarcation chambers located in single private drives to receive 150mm Gen3 concrete bed and surround will be required. Access Opening restricted to 350mm Ø or 350 x 350mm if depth to soffit is greater than 1.2m. DEMARCATION CHAMBERS AND LATERAL DRAINS TO BE ADOPTED

Revision table with columns: Rev, Date, Amendment, DRN, CHK, APR. Includes entries for driveway, ramp length, and various plan updates.

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Client: Orion Homes

Status: Scale: 1:250 Size: A1 - 594 x 841 Drawn: IE Chkd: NB Appvd:

Project: Residential Development, Whitehall Road West, Birkenshaw

Title: Drainage Layout

Drawing No: 23/341/500/001 Revision: R Job No: 23-341 Date: 21.02.24